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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/765,675   | 01/27/2004  | Sihem Amer-Yahia     | 2002-0447           | 9820             |
| 26652  | 7590        | 07/05/2006           | EXAMINER            |                  |
| AT&T CORP.<br>ROOM 2A207<br>ONE AT&T WAY<br>BEDMINSTER, NJ 07921 |             |                      | ALI, MOHAMMAD       |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2166                |                  |

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/765,675 | <b>Applicant(s)</b><br>AMER-YAHIA ET AL. |  |
|                              | <b>Examiner</b><br>Mohammad Ali      | <b>Art Unit</b><br>2166                  |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/27/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This communication is in response to the application filed on 1/27/04.

The application has been examined and claims 1-20 are pending in this office action.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract exceeded over 150 words. Appropriate correction is required.

### ***Information Disclosure Statement***

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Paragraph 0028 et seq. contains references.

***Claim Objections***

4. Claims 13-16 are objected to because of the following informalities: Examiner suggests claims 13-16 should be written as an independent form. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanveer Fathima Syeda-Mahmood ('Syeda-Mahmood' hereinafter), USPgPub 2003/0065655 in view of Green et al. ('Green' hereinafter), USP, 6,986,104.

With respect to claim 1,

Syeda-Mahmood teaches a method of searching a document having nested-structure document-specific markup (see para. 0044), the method comprising:

receiving a query that designates at least (A) a phrase to be matched in a phrase matching process (see para. 0054, Syeda-Mahmood), and (B) a selective designation of at least a tag or annotation that is to be ignored during the phrase matching process (see paras. 0024, 0048, Syeda-Mahmood);

deriving query-specific indices based on query-independent indices that were created specific to each document (see paras. 0053, 0054, Syeda-Mahmood); and

carrying out the phrase matching process using the query-specific indices on the document having the nested-structure document-specific markup (see paras. 0044, 0050 Syeda-Mahmood).

Syeda-Mahmood does not explicitly indicate claimed tag or annotation that is ignored during the phrase matching process.

Green discloses claimed tag or annotation that is ignored during the phrase matching process (see col. 14, lines 36-41, col. 37, lines 1-3, Green).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the cited references because tag or annotation

that is ignored during the phrase matching process of Green's teaching would have allowed Syeda-Mahmood's system in interactive process to build grammars and rules for the normalization of contents as suggested by Green at col. 37, lines 32-34. Further, tag or annotation that is ignored during the phrase matching process as taught by Green allow for more efficient processing, the computer-based device to perform a statistical or other analysis of the source database to identify how many times or how often individual elements are present, or may otherwise provide information for use in prioritizing elements for mapping to the standardized lexicon (see col. 4, lines 20-25, Green).

As to claim 2,

Syeda-Mahmood teaches wherein the query-independent indices were created (see para. 0044, 0050 Syeda-Mahmood)

by a method including:

a) labeling elements in the document with intervals (see para. 0044 et seq, Syeda-Mahmood), wherein:

a1) for markup tags, the intervals are defined in terms of a starting index number associated with an opening markup tag and an ending index number associated with a closing markup tag that corresponds to the opening markup tag (see paras. 0024, 0048 Syeda-Mahmood), and

a2) for single words, the intervals are defined in terms of a single index number associated with the word (see para. 0025, Syeda-Mahmood); and

b) forming the query-independent indices so that they are configured to be used in the searching method by first receiving, for a word or tag in the document, a position in the document, and by then indicating whether or not the word or tag is present at that position (see para. 0024, 0048 Syeda-Mahmood).

As to claim 3,

Syeda-Mahmood teaches wherein the step of deriving the query-specific indices involves deriving the query-specific indices from the query-independent indices without rebuilding any of the query-independent indices (see para. 0025, Syeda-Mahmood).

As to claim 4,

Syeda-Mahmood teaches wherein the step of deriving the query-specific indices includes forming at least one of a group (see para. 0026, Syeda-Mahmood) including:

an index of each word in the phrase to be matched by the phrase matching process (see para. 0050, Syeda-Mahmood);

an index of context tags that may be found in the document (see paras. 0024, 0048 Syeda-Mahmood); and

an index of at least a tag or annotation to be ignored during the phrase matching process (see para. 0024, 0048 Syeda-Mahmood).

As to claim 5,

Syeda-Mahmood teaches wherein the phrase matching process (see para. 0054, Syeda-Mahmood) includes: .

for each context interval, defined by a beginning index defining a position of beginning tag and a closing index defining a position of a closing tag, performing an

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index-nested loop by probing an index of each phrase word in order, and an index of each tag or annotation to be ignored, so as to construct at least one witness (see paras. 0024, 0048 Syeda-Mahmood);

wherein each witness is a contiguous sequence of intervals contained within the context interval and includes each phrase word occurrence exactly once and in phrase order (see paras. 0056, 0057, Syeda-Mahmood).

As to claim 6,

Syeda-Mahmood teaches wherein at least one witness includes each phrase word occurrence exactly once and in phrase order, interleaved with tags or annotations to be ignored (see paras. 0024, 0048, Syeda-Mahmood).

As to claim 7,

Syeda-Mahmood teaches wherein the phrase matching process (see para. 0054, Syeda-Mahmood) includes:

scanning, in document order, a combined index of (A) phrase words and (B) tags or annotations to be ignored, while using a stack to keep track of nested context intervals and annotation intervals (see paras. 0044, 0024 Syeda-Mahmood);

wherein: the stack includes at least one entry corresponding to a current context interval in which witnesses are identified (see para. 0062, Syeda-Mahmood); and

the at least one entry maintains a identified and (B) complete witnesses context interval set of (A) partial witnesses that are being that have been identified, within the current (see paras. 0063, 0064, Syeda-Mahmood).

As to claim 8,

Syeda-Mahmood teaches wherein the query (see para. 0064, Syeda-Mahmood) further designates:

a set of context tags defining a context to which the phrase match should be restricted (see para. 0040 et seq, Syeda-Mahmood).

As to claim 9,

Syeda-Mahmood teaches wherein:

the document's nested-structure document-specific markup is in Extensible Markup Language (XML) (see para. 0044, Syeda-Mahmood).

As to claim 10,

Syeda-Mahmood teaches wherein:

the receiving step includes receiving a query that designates at least a phrase to be proximity-matched in the phrase matching process (see para. 0057, Syeda-Mahmood); and

the phrase matching process involves proximity phrase matching as distinguished from exact phrase matching (see paras. 0058, 0059, Syeda-Mahmood).


Claims 11-20 have the same subject matter as of claims 1-10 and essentially rejected for the same reasons as discussed above.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Mohammad Ali  
Primary Examiner  
Art Unit 2166

MA  
June 24, 2006